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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HUYNH, KHOA B	

ART UNIT	PAPER NUMBER
4145	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,313	COLAK ET AL.	
	Examiner	Art Unit	
	KHOA B. HUYNH	4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because of the following informalities:

a. the specification should be separated into sections.

b. the abstract submitted, which is a copy the front page of the International Publication, needs to be reformatted.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

2. Claims 2-7 are objected to because of the following informalities: the phrase "characterized in that" is unclear. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-3, 6, 8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sensiper, EP 0135049** in view of **Ruby, US 5,883,575.**

5. **As per claim 1**,

6. Sensiper teaches: An interrogation system (100) *(**Sensiper, fig 6** shows such system; **Sensiper, page 8, lines 16-18**, "Fig 6 is a schematic diagram of an electronic article surveillance system…")* comprising:

7. - a station (101) *(**Sensiper, fig 6** shows such station, elements 101, 102, 103, 104 are antennas, elements 121, 122 are transmitters*) for obtaining a quantity (103) of a passive device (102) by interrogating the passive device (102), (***Sensiper, fig 6**, elements 130 is a passive device; **Sensiper, page 14, lines 19-22**, "a tag 130 … receives signals from antennas 101 … and reradiates one or more return signals in response thereto*) the station (101) comprising:

8. - transmitting means (104) (***Sensiper, fig 6, elements 121, 122** are transmitters)* for transmitting an electromagnetic pulse (105) (***Sensiper, page 13, lines 9-10**, "transmitters 121, 122 generate microwave signals")*

9. receiving means (106) (***Sensiper, fig 6, element 140** is a receiver connected to antenna 111*) for receiving, from the passive device (102) (***Sensiper, page 14, lines 22**, "the return signals are received by receiver antenna array 111*) a modulated ultra-wideband reflection (107) of the electromagnetic pulse (105) (***Sensiper, page 15, lines 19-23**, "tag 130 reradiating a small return signal at the sum frequency signal of 1830 Mhz … include any modulation ..."; 1830 MHz is over 500 MHz which is a limit for a signal to be considered ultra-wideband*)

10. - demodulating means (108) for demodulating the reflection and obtaining the quantity (103), the demodulating means (108) being coupled to the receiving means (106) (***Sensiper, page 17, lines 1-2**, "the receiver responds by admitting the signal to a demodulator or detector circuit"*)

11. and - the passive device (102) (***Sensiper, fig 6**, elements 130 is a passive device; **Sensiper, page 14, lines 19-22**, "a tag 130 … receives signals from antennas*

101 … and reradiates one or more return signals in response thereto) for transmitting the modulated ultra-wideband reflection (107) to the station (101) (***Sensiper, page 15, lines 19-23****, "tag 130 reradiating a small return signal at the sum frequency signal of 1830 Mhz … include any modulation ..."; 1830 MHz is over 500 MHz which is a limit for a signal to be considered ultra-wideband*)

12. Sensiper doesn't teach: the passive device (102) comprising a cavity (109) for modulating the reflection (107) in dependence upon the quantity (103), the cavity (109) having a physical property (110), the physical property (110) being dependent on the quantity (103)

13. Ruby teaches: the passive device (102) comprising a cavity (109) for modulating the reflection (107) (***Ruby, fig 13, element 134****: cavity;* ***Ruby, column 6, lines 6-12****, "Refer now to FIG. 13 which is a cross-sectional view of two FBARs 131 and 132 constructed on a thin member 133 having a tapered cross-section. As will be explained in more detail below, member 133 is constructed by etching a cavity 134 in a substrate 135. The two FBARs are isolated from one another by a pillar 136 which extends to the bottom of the cavity."*) in dependence upon the quantity (103), the cavity (109) having a physical property (110), the physical property (110) being dependent on the quantity (103) (***Ruby, page 6, lines 3-5****, "Accordingly, the resonant frequency of the device may be altered by changing the thickness of the membrane."; resonant frequency identifies the tag ID, which is the quantity*)

14. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Ruby's method of etching a cavity to change the resonant

frequency of the passive device in Sensiper's system since it "would be advantageous to be able to manufacture radio tags as single chips using conventional semiconductor manufacturing techniques" ***(Ruby, column 1, lines 57-59)*** and "provides a method for constructing inexpensive RF ID tags" ***(Ruby, column 6, lines 55-56)***. This method of improving Sensiper's system was within the ordinary ability of one of ordinary skill in the art based on the teaching of Ruby. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper and Ruby to obtain the invention.

15. **As per claim 2,**

16. Sensiper and Ruby teach: An interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

17. Sensiper further teaches: the demodulating means (108) being further arranged to obtain the identity (111) from the reflection (***Sensiper, page 17, lines 1-2****, "the receiver responds by admitting the signal to a demodulator or detector circuit"*)

18. Sensiper doesn't teach: characterized in that the passive device (102) has an identity (111), the passive device (102) being further arranged to modulate the reflection in dependence upon the identity (111)

19. Ruby teaches: characterized in that the passive device (102) has an identity (111) (***Ruby, column 4, lines 8-11****, "There are a number of applications in which it is advantageous to provide a set of RF tags in which each radio tag has a unique identification number which can be detected by the interrogator"*)

20. the passive device (102) being further arranged to modulate the reflection in dependence upon the identity (111) (***Ruby, column 5, lines 52-58****, "The above described embodiments of the present invention utilize the frequency of one or more resonators to provide the RF tag identification. The frequency is controlled primarily by controlling the thickness of the PZ layer. For any given PZ layer thickness, the resonance frequency can be shifted slightly by altering the area of the electrodes, and hence, the device"*)

21. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Ruby's method of having an identity for each passive device in Sensiper's system since "There are a number of applications in which it is advantageous to provide a set of RF tags in which each radio tag has a unique identification number which can be detected by the interrogator. For example, personnel ID badges can be constructed from such a set of RF tags" (***Ruby, column 4, lines 8-14***). This method of improving Sensiper's system was within the ordinary ability of one of ordinary skill in the art based on the teaching of Ruby. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper and Ruby to obtain the invention.

22. **As per claim 3,**

23. Sensiper and Ruby teach: An interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

24. Sensiper doesn't teach: characterized in that the cavity (109) has physical dimensions (112), the quantity being determined by the ratio of at least two of the physical dimensions (112)

25. Ruby teaches: characterized in that the cavity (109) has physical dimensions (112) (***Ruby, fig 13, cavity 134*** *has multiple physical dimensions*) , the quantity being determined by the ratio of at least two of the physical dimensions (112) (***Ruby, column 6, lines 22-32***, *"The substrate is then etched using a solution of HF and water as shown in FIG. 15. The etch rate of PSG is such that PSG is etched much faster than the silicon nitride. The ratio of the etch rates depends on the specific silicon nitride and PSG formulations; however, etch rate ratios of 1000:1 or greater are easily obtained. The portion of the silicon nitride layer nearest to opening 143 is exposed to the etchant much longer than the portions nearer to region 145. Hence, the resulting silicon nitride layer 144 will be tapered by an amount determined by the etch rate ratio."; Ruby, column 6, lines 47-54, "This approach of selectively "thinning" the SiN creates local thickness variation, and thus a multiplicity of frequencies for use as an RF tag as shown in FIG. 8 or FIG. 12A. In practice, such a device with its plurality of filters (or resonators) can be a template that is repeated across a wafer, yielding many RF-ID tags per silicon wafer. Uniqueness of ID can be accomplished by selectively connecting a unique set of filter/resonators via a fuse or other means"*)

26. The rationale to combine is same as in claim 1.

27. **As per claim 6,**

28. Sensiper and Ruby teach: An interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

29. Sensiper doesn't teach: characterized in that the demodulating means (108) comprise a replica(118) of the cavity (109)

30. Ruby teaches: characterized in that the demodulating means (108) comprise a replica(118) of the cavity (109) (***Ruby, column 3, lines 18-22***, *"Antenna 12 is connected to a tank circuit 14 which absorbs energy at frequency F. As a result, the signal that is re-radiated by RF tag 10 is notch filtered as shown in FIG. 3. The interrogator identifies the RF tag by the position of the notch."; since the interrogator identifies the RF tag by the position of the notch, it is inherent that there must be a replica of the cavity at the demodulating means*)

31. The rationale to combine is same as in claim 1.

32. **As per claim 8,**

33. Sensiper and Rudy teach: a station (101) *(**Sensiper, fig 6** shows such station, elements 101, 102, 103, 104 are antennas, elements 121, 122 are transmitters*)

34. for use in the interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

35. **As per claim 9,**

36. Sensiper and Rudy teach: a passive device (102) (***Sensiper, fig 6**, elements 130 is a passive device; **Sensiper, page 14, lines 19-22**, "a tag 130 … receives signals*

from antennas 101 … and reradiates one or more return signals in response thereto) for use in the interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

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37. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sensiper, EP 0135049** in view of **Ruby, US 5,883,575** further in view of **Stromswold, US 4,305,159.**

38. **As per claim 4,**

39. Sensiper and Ruby teach: An interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

40. Sensiper and Ruby don't teach: characterized in that the demodulating means (108) comprise spectral component analysis means (113) for obtaining a spectral component of the reflection (107), the spectral component analysis means (113) being coupled to the receiving means (106).

41. Stromswold teaches: characterized in that the demodulating means (108) (***Stromswold, fig 6, elements 60b, 60c, 61b, 61c*** *performs demodulation*) comprise spectral component analysis means (113) for obtaining a spectral component of the reflection (107), the spectral component analysis means (113) being coupled to the receiving means (106) (***Stromsword, elements 71-79b****: spectrum analysis;* ***Stromswold, column 6, lines 33-36****, "What has been described thus far is a*

compressive receiver capable of real time spectral analysis and demodulation in which the particular frequency bin analyzed is chosen by the timing signal to gate 60")

42. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Stromswold's compressive receiver capable of real time spectral analysis and demodulation in Sensiper's system since "With the capability of doing spectral analysis and demodulation plus the increased valid sampling rate, it is a simple matter to sweep a wide bandwidth and identify any signal which appears at the input to the compressive receiver either by demodulation or spectral analysis. This, of course, permits much more rapid identification of a source of unknown signals than has heretofore been possible." (***Stromswold, column 3, lines 4-9***). This method of improving Sensiper's system was within the ordinary ability of one of ordinary skill in the art based on the teaching of Stromswold. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper, Ruby, and Stromswold to obtain the invention.

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43. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sensiper, EP 0135049** in view of **Ruby, US 5,883,575** in view of **Stromswold, US 4,305,159** further in view of **Weinberg, US 5,144,642.**

44. **As per claim 5,**

45. Sensiper, Ruby, and Stromswold teach: An interrogation system (100) as claimed in claim 4 (see claim 4 rejection) characterized in that the spectral component analysis means (113) comprise:

46. Stromswold further teaches: … and a Fourier transformer (117) for performing a Fourier transform on the digital signal *(**Stromswold, fig 3, element 64**, Fourier transform)*

47. Sensiper, Ruby, and Stromswold don't teach: an A/D converter (115) for converting the received reflection into a digital signal, the A/D converter (115) being coupled to the receiving means (106)

48. Weinberg teaches: an A/D converter (115) for converting the received reflection into a digital signal, the A/D converter (115) being coupled to the receiving means (106) (***Weinberg, fig 2**, received signal is sent from A/D converter 34 to spectral characterization*)

49. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Weinberg's A/D converter in Stromswold's receiver since Stromswold discussed that his receiver can provide sampling of frequencies, and in order to provide samples, the signal has to be converted from analog to digital (***Stromswold, column 2, lines 40-44,** "This type receiver can provide for sampling of the frequencies within, for instance, a 1.6 MHz band between 5 MHz to 6.6 MHz. For this case, the "revisit" time, that is, the time between samples of a given frequency, is typically on the order of 3.6 milliseconds."*). This method of improving Stromswold's receiver was within the ordinary ability of one of ordinary skill in the art based on the

teaching of Weinberg. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper, Ruby, Stromswold, and Weinberg to obtain the invention.

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50. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sensiper, EP 0135049** in view of **Ruby, US 5,883,575** in view of **Tsai, SPIE Vol. 154** further in view of **Ashitaka, US 5,403,520.**

51. **As per claim 7,**

52. Sensiper and Ruby teach: An interrogation system (100) as claimed in claim 1 (see claim 1 rejection)

53. Sensiper and Ruby don't teach: characterized in that the electromagnetic pulse (105) comprises a light beam (119) and the passive device (102) comprises a non-linear optical unit (120) for transforming the light beam (119) into the ultra-wideband reflection (107).

54. Tsai teaches: characterized in that the electromagnetic pulse (105) comprises a light beam (119) (***Tsai, fig 1****, shows a light beam being sent by the thin-film laser*) and the passive device (102) comprises a … optical unit (120) for transforming the light beam (119) into the ultra-wideband reflection (107) (***Tsai, fig 3*** *shows a light beam deflector*)

55. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Tsai's technique of reflecting light beam in Sensiper's system since "one major area of potential applications for planar guided-wave acoustoopical interactions lies in real-time wideband RF signal processing" (***Tsai, page 1, paragraph 2, lines 1-2***) and "the resulting correlators are more efficient than their bulk-ware counterparts. They are also smaller, lighter in weight, less susceptible to environmental effects, and more integratable, and thus potentially less costly" (***Tsai, page 1, paragraph 3, lines 15-17***). This method of improving Sensiper's system was within the ordinary ability of one of ordinary skill in the art based on the teaching of Tsai. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper, Ruby, and Tsai to obtain the invention.

56. Sensiper, Ruby, and Tsai don't teach: the optical unit is a non-linear optical unit

57. Ashitaka teaches: non-linear optical unit (***Ashitaka, column 1, lines 10-13****, "The present invention relates to a nonlinear optical device and an optical signal processing unit for use in the fields of optoelectronics, optical information processing, optical communication, etc.")*

58. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Ashitaka's non-linear optical unit in Tsai's technique of reflecting light beam since "nonlinear optical materials are materials having a nonlinear response of second or higher order in a strong electric field of a laser beam and are important to optical signal processing such as frequency conversion, oscillation and switching. " (***Ashitaka, column 1, lines 15-19***). This method of improving Tsai's

technique was within the ordinary ability of one of ordinary skill in the art based on the teaching of Ashitaka. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sensiper, Ruby, Tsai, and Ashitaka to obtain the invention.

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59. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ruby, US 5,883,575** in view of **Sensiper, EP 0135049.**

60. **As per claim 10,**

61. Ruby teaches: A method of obtaining a quantity (103) of a passive device (102) (***Ruby, column 3, lines 10-13****, "The present invention utilizes a thin film bulk acoustic resonator (FBAR) to modify the interrogation signal thereby providing a unique RF signal that identifies the tag"; tag id is a quantity, the tag is a passive device)* with a cavity (109) having a physical property (i10) *(**Ruby, fig 13, element 134**: cavity; **Ruby, column 6, lines 6-12**, "Refer now to FIG. 13 which is a cross-sectional view of two FBARs 131 and 132 constructed on a thin member 133 having a tapered cross-section. As will be explained in more detail below, member 133 is constructed by etching a cavity 134 in a substrate 135. The two FBARs are isolated from one another by a pillar 136 which extends to the bottom of the cavity."*) by interrogating the passive device (102) *(**Ruby, column 3, lines 21-22**, "The interrogator identifies the RF tag by the position of the notch.")* the method comprising the steps of:

62. .. modulated by the cavity (109) *(**Ruby, fig 13, element 134**: cavity; **Ruby, column 6, lines 6-12**, "Refer now to FIG. 13 which is a cross-sectional view of two FBARs 131 and 132 constructed on a thin member 133 having a tapered cross-section. As will be explained in more detail below, member 133 is constructed by etching a cavity 134 in a substrate 135. The two FBARs are isolated from one another by a pillar 136 which extends to the bottom of the cavity."*) in dependence upon the physical property (i10) being affected by the quantity (103) (***Ruby, page 6, lines 3-5**, "Accordingly, the resonant frequency of the device may be altered by changing the thickness of the membrane."; resonant frequency identifies the tag ID, which is the quantity*)

63. Ruby doesn't teach: transmitting an electromagnetic pulse (105) to the passive device (102), receiving a modulated ultra-wideband reflection (107) of the electromagnetic pulse (105), demodulating the modulated ultra-wideband reflection (107) received; and obtaining the quantity (103)

64. Sensiper teaches:

65. - transmitting an electromagnetic pulse (105) to the passive device (102) (***Sensiper, page 13, lines 9-10**, "transmitters 121, 122 generate microwave signals")*

66. - receiving a modulated ultra-wideband reflection (107) of the electromagnetic pulse (105) (***Sensiper, page 14, lines 22**, "the return signals are received by receiver antenna array 111; **Sensiper, page 15, lines 19-23**, "tag 130 reradiating a small return signal at the sum frequency signal of 1830 Mhz … include any modulation ..."; 1830 MHz is over 500 MHz which is a limit for a signal to be considered ultra-wideband*)

67. - demodulating the modulated ultra-wideband reflection (107) received; and obtaining the quantity (103) (***Sensiper, page 17, lines 1-2***, *"the receiver responds by admitting the signal to a demodulator or detector circuit"*)

68. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to includes Sensiper's techniques of transmitting microwave signals, receiving and demodulating signals in Ruby's method since it is typical for Ruby's method to be used together with a transmitter and receiver (***Ruby, column 1, lines 13-18***, *"Typically, an interrogator transmits an interrogation signal. When a transponder receives the interrogation signal, it responds by broadcasting its unique identification code. The interrogator identifies the transponder and the object with which it is associated by detecting this identification code."*). This method of improving Ruby's method was within the ordinary ability of one of ordinary skill in the art based on the teaching of Sensiper. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ruby and Sensiper to obtain the invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHOA B. HUYNH whose telephone number is (571) 270-7185. The examiner can normally be reached on Monday - Thursday: 7:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./
Examiner, Art Unit 4145
/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 4145